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Dong Yu

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EXAMINER

SHAH, PARAS D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,451	Applicant(s) YU ET AL.	
	Examiner PARAS SHAH	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/17/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 14-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7 and 14-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 04/17/2008, PROSECUTION IS HEREBY REOPENED. A New Grounds for rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Patrick N. Edouard/

Supervisory Patent Examiner, Art Unit 2626

2. This communication is in response to the Appeal Brief filed on 04/17/2008. Claims 1, 3, 4, 6,7, and 14-25 are pending and have been examined. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance.

3. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Response to Arguments

4. Applicant's arguments in the Appeal Brief (pages 10-19) filed on 04/17/2008 with regard to claims 1, 3, 4, 6,7, and 21-25 have been fully considered but they are not persuasive (e.g. The arguments as stated in the Final office Action appear below). However, upon further consideration, the secondary reference of Hon (903) was withdrawn regarding claims 14-20.

As to the arguments regarding claim 1, the Applicants argue that Nassiff does not teach the limitation of "modify a probability associated with an existing pronunciation" since the language model is updated and not the acoustic model. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., updating an acoustic model) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, the cited reference does not teach away from the current limitation. Further, the following passages are cited in Nassiff, (col. 6, lines 64-65 and col. 7, lines 43-61) to show the updating of the language model and the relevant statistical scores (e.g. probability). Furthermore, the word patterns as disclosed to Nassiff is a representation of word sequences (see col. 6, lines 60-66) that consist of probabilities

associated with each other. A change in the sequence of word directly affects the pronunciation, where the stated reference prevents future misrecognition by updating the language model (see col. 6, lines 33-34).

As to the arguments regarding claim 7, the Applicants argue that Nassiff does not teach the limitation of “inferring whether the change is a correction, or editing includes comparing a speech recognition score of the dictated text ...”The examiner traverses this argument by citing col. 5, lines 32-48 and col. 7, lines 49-63. The system makes a determination or inference is a correction or edit has been made. If this has been done than the system knows an error has occurred. The latter citation shows a comparison between the misrecognized word and the recognized word. A close match using a statistical measure is compared and if within a threshold the language model is updated or leaned.

As to the arguments regarding claim 9, the Applicants argue that Nassiff in view of Gould does not teach “measuring the amount of time between dictation and the change”. The examiner traverses these arguments by again citing the passages in Gould on page 5, lines 56-59 and on page 7, lines 13-19. An inference is made by first allowing the use to correct and error between a predetermined time, which in this case is the last three utterances. The system makes an inference by detecting this edit and updating speech models and hence meets the limitation as cited in claim 9.

As to the arguments regarding claim 20, the Applicants argue that Nassiff in view of Hon (809) in view of Hon (903) does not teach does not teach “determining whether the new pronunciation has occurred a pre-selected number of times.” In response to

applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Nassiff reference states the updating or learning of the language model as discussed above in claim 1. Furthermore, Hon (903) teaches that if the phoneme has occurred a selected number of times then incorrect recognition has occurred (see col. 7, lines 17-23). The Nassiff reference states the detection of misrecognition error. The use of the Hon *et al.* reference presents a method to detect misrecognition errors based on frequency of misrecognized words (see Hon col. 7, lines 17-23).

As to the arguments regarding claim 21, the Applicants argue that Nassiff in view of Hon (801) does not teach the limitation "adding at least one word pair to the user lexicon." The examiner traverses this argument by citing again the Hon (801) reference that presents a method of adding words to the lexicon. Furthermore, the Nassiff reference discloses the recognition of two similarly recognizable words. Specifically, "steep" and step" as in col. 7, lines 43-60. determination is made if the word is in the replacement word in on the list. If it is not then a close match is found. Each word on the replacement list represents a corresponding pair to another word that may be misrecognized. Hence, the Hon (801) reference was used to teach the adding of a word to a lexicon, which benefits the correction for speech recognition as, taught by Nassiff by updating a replacement word list. Hence the combination of references teaches the above limitations.

As to claim 22, the Applicants argue that Nassiff in view of Hon (801) does not teach the limitation “word pair is added to the lexicon temporarily.” The examiner traverses this argument by citing the Nassiff reference discloses the recognition of two similarly recognizable words. Specifically, “steep” and step” as in col. 7, lines 43-60. determination is made if the word is in the replacement word in on the list. If it is not then a close match is found. Each word on the replacement list represents a corresponding pair to another word that may be misrecognized. Hence, the Hon (801) reference was used to teach the adding of a word to a lexicon, which benefits the correction for speech recognition as, taught by Nassiff by updating a replacement word list. Furthermore, the Nassiff *et al.* reference identified a problem, namely, if misrecognition has taken place due to an error or a user edit. The checking to a replacement word list is done. The ability to store a word temporarily is relative, where the word’s score is increased to recognize the words in a future instance (see Hon(801) col. 9 lines 11-27). This new score associated with the word allows the word in the lexicon to be different since adaptation to the acoustic models has been performed.

Claim Objections

5. Claim 15 is objected to because of the following informalities: Claim 15 should be dependent upon claim 14, where “the wave” is first described. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear from claim 14, what result occurs if a context word does not exist. The current claim limitation denotes the context word existing if such word exists. However, it is unknown what occurs when the word does not exist. However, for compact prosecution the limitation was interpreted to mean surrounding text either appearing or not appearing, hence possibly including a single word alignment.

8. Claims 15-20 are rejected as dependent upon an indefinite base claim.

9. Claim 17-20 recites the limitation "newly identified pronunciation" and "the new pronunciation" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear from the claims which result the limitations "newly identified pronunciation" and "the new pronunciation" is referring to as it lacks antecedent basis. For the purposes of compact prosecution, the limitation was interpreted to refer to the corrected pronunciation.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nassiff *et al.* (US 6,418,410).

As to claim 1, Nassiff *et al.* teaches

a computer-implemented speech recognition system comprising:

a microphone to receive user speech (see col. 4, lines 16-18);

a speech recognition engine coupled to the microphone (see col. 4, lines 16-17) (e.g. The speech recognition engine receives input from the microphone so it is implied that the two are coupled.), and being adapted to recognize the user speech (see col. 4, lines 15-19) and provide a textual output on a user interface (see col. 2, lines 19-20 and col. col. 5, lines 32-38); and

wherein the recognition engine is adapted to determine if the user's pronunciation caused the error, and selectively modify a probability associated with an existing pronunciation (see col. 7, lines 55-66) (e.g. The use of a statistical quantity with the updating of a language model implies that a probability value is associated with a word when comparisons are made (see col. 6, lines 28-31)).

As to claim 4, Nassiff *et al.* teaches wherein the recognition engine is adapted to determine if the user's pronunciation caused the error and selectively learn the new pronunciation (see col. 6, lines 45-50 and lines 57-58) (e.g. The determination is made

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as to whether a misrecognition error has occurred, if so the language model is updated.).

As to claim 7, Nassiff *et al.* teaches a method of learning with an automatic speech recognition system, the method comprising:

detecting a change to dictated text (see col. 5, lines 33-40, based on deletion or typing over the words);

inferring whether the change is a correction, or editing (see col. 5, lines 33-48, correction or editing is determined based on deletion (editing) or typing over the words (correction.); and

wherein inferring whether the change is a correction includes comparing a speech recognition engine score (see col. 6, lines 28-31) of the dictated text and of the changed text (see col. 7, lines 50-62).

if the change is inferred to be a correction, selectively learning from the nature of the correction without additional user interaction (see col. 6, lines 45-50).

wherein selectively learning from the nature of correction includes determining if the corrected word exists in the user lexicon, selectively learning the pronunciation (see col. 6, lines 45-50, the language model is updated when the replacement word is found on the alternative word list.)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3, 6, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassiff *et al.* in view of Hon *et al.* (US 5,852,801).

As to claims 3 and 21, Nassiff *et al.* teaches the use of a user lexicon (see col. 6, line 25 and col. 6, line 28)) (e.g. the alternative word list).

However, Nassiff *et al.* does not specifically teach the user updating of new words in the lexicon.

Hon *et al.* (801) does teach the use of a lexicon, which is updated for new words (see col. 9, lines 36-40), where words are added when determining if the words exist in the user lexicon (see col. 7, lines 66-67 and col. 8, lines 1-3) (e.g. The determination is made of whether the word is in the lexicon if it is unrecognized). (e.g. Since the language model is updated the temporary storing of words in Nassiff based on presence or absence in the user lexicon would be obvious to one of skilled in the art. Further, it was stated that the word “two much” and “too much” is added to the lexicon, where the words two and too are a word pair. Hence, Nassiff teaches a similar word pair being step and steep. The misrecognition of step to be steep would be a word pair when added to the list of words as taught by Hon.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the correction of dictating speech of Nassiff *et al.* with the inclusion of an updating lexicon for adding corrected or new words as taught by Hon (801). The motivation to have combined the references involves the reduction of errors when spoken words are not found in the lexicon of the recognition engine so as to adapt to unrecognized words in a speech recognition system (see Hon (801) col. 1, lines 33-36 and lines 54-56).

As to claim 6, Nassiff *et al.* teaches the updating of the user lexicon not based on new words or new pronunciation (see col. 6, lines 45-50) (e.g. Since the updating of the language models is performed, the extraction of the specific word will be retrieved and hence is an alternate form of a word in the alternate list as indicated by the reference (e.g. The example given is “steep” and “step”)).

However, Nassiff *et al.* does not specifically teach the user adding of new words in the lexicon.

Hon *et al.* (801) does teach the use of a lexicon, which is updated for new words (see col. 9, lines 36-40), where words are added (see below) when determining if the words exist in the user lexicon (see col. 7, lines 66-67 and col. 8, lines 1-3) (e.g. The determination is made of whether the word is in the lexicon if it is unrecognized).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the correction of dictating speech of

Nassiff *et al.* with the inclusion of an updating lexicon for adding corrected or new words as taught by Hon (801). The motivation to have combined the references involves the reduction of errors when spoken words are not found in the lexicon of the recognition engine so as to adapt to unrecognized words in a speech recognition system (see Hon (801) col. 1, lines 33-36 and lines 54-56).

14. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassiff *et al.* in view of Hon *et al.* (US 5,852,801) as applied to claim 13 above, and further in view of Lewis *et al.* (US 6,138,099).

As to claim 14, Nassiff *et al.* and Hon *et al.* (US 5,852,801) do not teach the forced alignment of the wave based on a context word.

Lewis *et al.* does teach doing a forced alignment (see Figure 2, step 40, comparison of original audio an baseform of replacement text) of a wave (see Figure 2, step 36, wave is the text or audio) based on at least one context word if such a word exists (see Figure 2, step 36, 38, and 40, the input text of a speech session is used for comparison and determination of replacement text is made).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the correction of dictated speech presented by Nassiff *et al.* and Hon *et al.* (US 5,852,801) with the inclusion of alignment between two words as taught by Lewis. The motivation to have combined the references involves updating language models during speech misrecognition without user interaction (see Lewis, col. 1, lines 25-31) as would

benefit the speech recognition system presented by Nassiff *et al.* to enhance phonetic and pronunciation recognition.

As to claim 15, Lewis *et al.* teaches wherein determining if the user's pronunciation deviated from existing pronunciations includes identifying in the wave the pronunciation (see step 40 and step 42, where the original and corrected baseform are compared to see if deviation exists).

As to claim 16, Hon *et al.* (US 5,963,903) teaches wherein building a lattice based upon possible pronunciations of the corrected word and the recognition result. (see col. Figure 2, step 50, baseform of replacement text generated if not exists and compares in step 40.) (e.g. Hence, it is obvious that the original audio/text also has a baseform representation in order for comparing the two alignments)

As to claims 17-19, Nassiff *et al.* teaches wherein generating a confidence score based at least in part upon the distance of the newly identified pronunciation with existing pronunciations (see Figure 2, steps 40 and 42, where the two baseforms of the original and replaced text are compared to determine whether an acoustic match occurs. As to claim 18, a close acoustic match between the two texts are determined based on some type of scoring. As to claim 19, in order to propagate from step 42 to 41 or 42, a threshold is needed).

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nassiff *et al.* in view of Hon *et al.* (US 5,852,801) in view of Lewis as applied to claim 19 above, and further in view of Beaufays *et al.* (US 7,280,963).

As to claim 20, Nasiff teaches learning from pronunciation errors (see claim 7, above).

However, Nassiff in view of Hon in view of Lewis do not specifically teach the new pronunciation occurring a predetermined number of times.

Beaufays *et al.* does teach learning the pronunciation based whether the new pronunciation has occurred a pre-selected number of times (see col. 5, lines 1-10, words below a threshold are removed from transcribed acoustic data in order to prevent pronunciation learning of incorrect words. Hence, it can be inferred that words above the threshold are retained.).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the correction of dictated speech presented by Nassiff *et al.* and Hon *et al.* (US 5,852,801) with the pronunciation occurring a pre-selected number of times as taught by Beaufays for the purpose of preventing the learning of incorrect words (see col. 5, lines 1-10).

16. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassiff *et al.* in view of Hon *et al.* (801) as applied to claim 22 above, and further in view of Hoffman *et al.* (US 2003/0139922).

As to claims 22 and 23, Nassiff *et al.* in view of Hon *et al.* teach all of the limitations as in claim 22, above.

Furthermore, Nassiff *et al.* teaches the recognition of two similarly recognizable words (word pair). Specifically, “steep” and “step” as in col. 7, lines 43-60. (e.g. Determination is made if the word is in the replacement word in on the list. If it is not then a close match is found. Each word on the replacement list represents a corresponding pair to another word that may be misrecognized.

Furthermore, the Hon (801) reference was used to teach the adding of a word to a lexicon (see col. 9, lines 36-40).

However, Nassiff in view of Hon *et al.* do not specifically teach addition of a word pair temporarily based on the most recent time the word pair is observed and the relative frequency that the pair has been observed in the past.

Hoffmann *et al.* teaches the addition of a word to a lexicon (vocabulary) is based at least partially upon the most recent time the word pair is observed (see [0015], FIFO, where the words not used for a long time are omitted) and the relative frequency (see [0015] and [0031], frequency of occurrence, that the pair has been observed in the past.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the speech recognition system as taught by Nassiff *et al.* in view of Hon *et al.* with the updating a vocabulary depending on frequency and time as taught by Hoffmann *et al.*. The motivation to have combined the references involves continuous renewal of the vocabulary to

eliminate word not used often and those not used for a long time (See Hoffmann *et al.*, [0015]).

17. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nassiff *et al.* in view of Gould (EP 0773 532 A2).

As to claim 24, Nassiff *et al.* teaches a method of learning with an automatic speech recognition system, the method comprising:

detecting a change to dictated text (see col. 5, lines 50-61, change is detected by a typing over the dictated word or deletion.)

inferring whether the change is a correction (see col., lines 60-61) based at least partially upon the number of words changed (e.g. It is obvious to the reference that the number of words are taken into consideration to find out which words were changed (see col. 5, lines 58-61, where replacement words and dictated words are one or more words. The deletion or typing over makes the inferring obvious in order to determine which words were edited or corrected.); and

if the change is inferred to be a correction, selectively learning from the nature of the correction (see col. 7, lines 43-61, language models are updated or learned from the correction of step to step.)

The Gould reference is applied to show the use of specific number of words that are to be corrected. Gould teaches to determine the number of words that are corrected (see. Page 7, lines 13-19) (e.g. The user can correct a

predetermined number of user's last utterances which is determined to be misrecognized. The limit used in the reference is three,. Further the detection of a change is determined by saying a phrase or typing or through mouse selection. The use of mouse selection allows the computer to realize which words need to be corrected (see page 7, lines 20-27)).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the correction of dictated speech of Nassiff *et al.* with the inclusion of determining number of words as taught by Gould. The motivation to have combined the references involves the editing of misrecognized words and words recognized correctly but user changes mind as would benefit the system presented by Nassiff *et al.* to allow correctly recognized words to be changed as well as misrecognized words (see Gould page 5, lines 56-58 and page 2, lines 22-29).

As to claim 25, Nassiff in view of Gould teach all of the limitations as in claim 24, above.

Furthermore, Gould teaches wherein if the change is inferred to be a correction, requesting a user confirmation (see page 7, lines 20-36, correction window pops up as well as spelling window) (e.g. Based on the system determining that a change in the dictated text is found by a command or selection, the change being a correction is verified by the use of a correction or

spelling window that pops up for the user to edit or correct the entry. This is the confirmation as to whether a correction needs to be made)

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bahl *et al.* (US 6,377,921) is cited to disclose identifying mismatches between actual and assumed pronunciations. Yegnanarayanan *et al.* (US 6,490,555) is cited to disclose a forced alignment of sequences. Qin *et al.* (US 6,513,005) is cited to disclose correcting error characters in speech recognition. Stevens (US 6,912,498) is cited to disclose error correction in speech recognition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paras Shah/
Examiner, Art Unit 2626

06/18/2008

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626